2002-03

The Profession of IT, Internet Time Out

Denning, Peter J.

Internet Time Out. (March 2002) Technology will not help with information overload. New commitment management practices will.

http://hdl.handle.net/10945/35499

Peter Denning

Internet Time Out

Technology won't solve information overload. New commitment management practices will.

One of the most common buzzwords today is "Internet time." It describes the apparent increase of the pace of important events that we experience with the Internet. Developments that used to take years, it seems, now happen in days. Competitors pop up by surprise from nowhere; it is no longer possible to identify them all and monitor them. The now-widespread practice of email has simultaneously improved business communications and become a burden for many. Many IT practitioners, growing weary of spending two or three hours a day keeping up with the many dozen arriving email messages, complain of "information overload." Like most buzzwords, "Internet time" and "information overload" contain important seeds of truth while masking misconceptions that lead to ineffective actions.

Andrew Odlyzko debunks a key aspect of Internet time—the notion that the Internet has sped up the pace of production and adoption of new technologies [3]. He offers example after example of new technologies that have taken just as long to diffuse as their predecessors in previous decades. He concludes that the most cited example, the Web browser, is the single exception to the rule. He claims that belief in the myth comes from a misreading of transient phenomena and from business hype.

Odlyzko did not address information overload, another key aspect of Internet time. As noted in a previous column (Nov. 2001), we are moving into a knowledge age in which the Internet facilitates the reach and speed of communications. We can send email or transmit Web pages and documents anywhere in the world cheaply and in a fraction of a second. As our communication circle enlarges, the collective rate of events from it rises. Even if the diffusion of Internet technology into society is slow, it is inexorable, and it enables an ever-increasing flow of messages.

Time has become our most precious resource. Every email message, phone call, or Web page link is a request for our time. Since the Internet does not accelerate our biological processes, an ever-greater proportion of our time is spent simply taking notice of these requests, and it soon appears we will run out of time to complete all the tasks for which we are responsible. Can anything be done about information overload?

Technology to the Rescue?

Email plays a prominent role in negative anecdotes about the Internet stealing people's time. Experienced email users receive 100–200 messages a day. Even newcomers find themselves quickly initiated into a regimen of

GREG MORGAN

The usual advice, "hit the 'delete' key," is sound but only marginally helpful. It takes time to check whether a message is one to pay attention to or one to delete.

daily sorting dozens of messages from perfect strangers and well-meaning business associates. Spamming is a vigorous and growing practice, averaging over 1,500 email messages for each Internet user in 2001. The spam industry is mostly automated. An advertiser can turn a profit with rates of return of 1 in 10,000, well below acceptable rates for traditional mail advertising.

Email also facilites "emergent spam," in which thousands of individuals unwittingly and collectively overload some mailboxes. Personnel departments receive thousands of resumes from job seekers. State and national legislators are overwhelmed by email letters from constituents aroused by special interest groups. System administrators are overloaded with antispam complaints, many sent automatically by "spam cops."

Unsolicited email is not the only demand for our attention. When we engage in e-commerce, we are usually asked for our email address as part of the transaction—thereby signing us up for regular ads from the company or its allies. There's more. Mindful of Drucker's dictum for knowledge workers—get the right information to the right people at the right time—many business units in an organization send out regular announcements or newsletters to everyone.

The usual advice, "hit the 'delete' key," is sound but only marginally helpful. It takes time to check whether a message is one to pay attention to or one to delete. If you receive 100 email messages a day and spend 20 seconds to evaluate each one for deletion, you accumulate 30 minutes just to make the evaluations. Reading all courtesy announcements from other business units can easily add another 30 minutes to the total. Across an entire organization, this adds up to 10% to 15% of employee time for email evaluation—an expensive waste.

Email filters are often touted as the antidote to unwanted email. Unfortunately such technological countermeasures are of limited value. The problem is that advertisers and fellow business units are growing in their sophistication at matching missives to our interests. We probably won't block these with filters. Before long 100 email messages a day will pass our best filters. We will need an entirely different approach to decide which ones should occupy our time. We haven't the time to do all the interesting things people offer us.

Email is barely the tip of an iceberg. Hundreds of millions of people worldwide make enormous numbers of documents available on Web pages. When we invoke search engines, we often find hundreds or thousands of documents "matching" our inquiries. Improvements in search engines that narrow the set of responses cannot keep up with the sheer growth in the number of Web pages. Even with a good search engine, finding the document you want is, as one wag put it, like trying to find a needle in a stack of needles. No wonder so many people complain of "search engine overload."

A New You

Many years ago, my colleague Brian Randall of the University of Newcastle-upon-Tyne told me of a famous consultant who often solved technology problems by dealing with people's perceptions of themselves and technology. This man installed mirrors in the lobby of a building where people complained incessantly about long waits for elevators. When people saw themselves in the mirrors, they forgot about the delays. No elevator electronics expert was able to reduce complaints to the extent this solution did.

The same philosophy can help with information overwhelm. Information overwhelm is a perception that the demand for our time by all incoming requests pre-

vents us from getting important and meaningful work done. The real answer to this question is to change the perceptions about how work is done and the practices for managing our commitments.

Managing commitments has four aspects. First, we need a practice for evaluating which commitments are important. All other requests for our commitments can be safely ignored. Second, we need a practice for evaluating the time and other resources proposed commitments will demand of us. If a request for a new commitment is beyond our capacity, we cannot accept it. Third, we need practices for coordinating effectively with other people in our network. If we cannot do this, we will quickly build distrust with them, and we will be unable to fulfill our commitment. Fourth, we need a practice for saying no. If any of the other practices leads us to decline a request, we must have the fortitude to decline even if the request "sounds interesting" or, worse, "cannot be refused."

This framework is not about "time management." A new request does not take time unless we accept it and commit to fulfill it. Our time is spent as a consequence of our taking on commitments. To manage our precious time, we must manage our commitments.

Practices for evaluating proposed commitments. The key here is to be able to decide what is important and the tool is a mission statement. Many individuals find it highly worthwhile to write a personal mission statement. Good managers do this for their projects and organizations. A good mission statement makes it easy to decide whether a request contributes value or is wasteful. Action that does not contribute to the mission is waste.

Stephen Covey uses a matrix to organize commitments so that the most important ones occupy most of the time [1]. The matrix has quadrants corresponding to the four combinations of the attributions important versus unimportant, and urgent versus nonurgent. Each commitment is assigned to a quadrant of this matrix. The first practice of using the matrix is to decline all unimportant commitments. The second practice is to minimize urgent commitments by anticipating potential problems and acting on them before they become urgent crises. One way to anticipate potential problems is to raise "red flags" with colleagues and associates. A red flag is a statement of concern that some development may prevent the group from fulfilling a promise. Individuals and teams employing these practices will spend most of their time on important but not urgent commitments and less time on fighting fires or countering crises.

When deciding what is really important, we should look for commitments that we are willing to embody. Commitments we do not care about will only get done by sheer will power and will often be unsatisfactory both to the doer and to the recipient. Embodied commitments, in contrast, bring great satisfaction.

Practices for evaluating capacity. Many project teams use Gantt or milestone charts to map out the time required for all tasks so the project can be completed on schedule. These charts are tools for determining whether the team has the capacity to complete the project and for keeping everyone focused on the most important next actions.

However, on a personal level many of us lack a corresponding practice for monitoring load against capacity. A simple but effective load-monitoring practice is to make a spreadsheet to inventory your total load of commitments, including nonwork ones. Name each commitment, state how many hours a week are needed to do it right, state how many hours per week you actually devote to it, and state what resources besides time you need. When you add up the totals, you are likely to find that many of your commitments are not getting the time needed to do them well. You may find the total time actually spent on your professional commitments alone approaches 100 hours a week. That leaves only 68 hours for eating, sleeping, family, community, spirituality, and chores. Such a condition is almost certain to leave you in an overwhelmed mood and a target for stress-related diseases.

Practices for coordination. Once we have means to decide what is important and to assure

our capacity, we need practices for completing our commitments [2]. It is helpful to recognize that all our commitments are carried out in conversations with others. Our commitments are part of a larger network of commitments of our work groups, organizations, and communities. Our network presents itself to us with four aspects: people to whom we make promises (boss and coworkers), people who make promises to us (direct reports, staff, and coworkers), people who help with infrastructure (phones, computers, accounting, purchasing, hiring, and so forth), and external customers. To fulfill our commitments, we need to track these conversations and keep them moving toward completion.

Our ability to carry out commitments depends on good relations with our network and on their willingness and capacity to fulfill promises to us. Each of us therefore needs to be rigorous as we manage our promises to others. The two main reasons that people fail to keep promises are: they do not have the capacity or competence to fulfill, or they are insincere in saying they will fulfill. Either way, failure to fulfill generates distrust and interferes with their future ability to function in their networks. As part of good commitment management practice, we notify our customers if something comes up that will delay delivery or modify what is delivered; we negotiate new terms and deadlines. If we must cancel, we offer to help our customers ameliorate the negative consequences.

These coordination practices can be exercised in email. We can be clear in our requests, promises, declinations, and deadlines. We can recognize that people outside our immediate network are in the same circumstance as we are: time is precious and they may decline requests by deleting email. It is unreasonable to assume they are willing to talk with us just because we sent them an email message. A good move is to ask them for a few minutes of their time and follow up with the main request if they accept.

Practices for saying no. Despite our best intentions after employing these three practices, many of us still cannot say no. It seems as if saying no to a boss is inappropriate, or saying no to a friend will injure the relationship, or saying no to something interesting will leave us with only uninteresting activities. Yet if we cannot learn to say no, we cannot long avoid being overwhelmed. In some cases, such as responding to the boss, saying no may not be an option; then we must counteroffer with helpful actions within our capacity. Some people find it helpful to train themselves to say no by a role-playing game with a colleague: one person makes the same request over and over and the other repeatedly declines. The requestor can try seduction, persuasion, threats, and intimidation to get the other to say yes. The other continues to say no and thereby develops the capacity for doing so despite all the allurements and incentives.

Part of Your Core of Professional Practices

The practices outlined here are more than a helpful set of tips. They are essential practices for a professional. A professional who cannot manage commitments and exceeds capacity will not earn trust or be taken seriously. In the end, only a new you can cope with the rate at which technology brings requests for your time.

There are many rewards for adopting these practices. Customers value transactions in which the performer not only respects their time, but is convenient, competent, and understanding of their situations. Doing business with such performers affords a brief respite from the chaos of the network. Customers avoid transactions that bring no value or, worse, subtract value. Customers in the Network Age seek providers who can make and deliver value-producing promises. The practices explained in this column enable you to carry out your transactions in an efficient way. C

References

1. Covey, S. *First Things First*. Simon and Schuster, 1994.
2. Denning, P. and Medina-Mora, R. Completing the loops. *ORSA/TIMS Interfaces 25*, 3 (May–June 1995), 42–57.
3. Odlyzko, A. The myth of Internet time. *Technology Review 104*, 3 (Apr. 2001), 92–93.

Peter Denning (pjd@cs.gmu.edu) is past president of ACM and the chair of the ACM Education Board.